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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/702,422

11/05/2003

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EXAMINER

ROGERS, JAMES WILLIAM

ART UNIT

PAPER NUMBER

1618

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/702,422	Applicant(s) ENGLER ET AL.	
	Examiner JAMES W. ROGERS	Art Unit 1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 04/05/2010 has been entered.

Applicants amendments to the claims filed 04/05/2010 have been entered. Any objection/rejection from the previous office action filed 12/03/2007 not addressed below has been withdrawn.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1,3,6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattox (EP 0,490,565 A1, cited previously) as evidenced by product brochure for triton CF-10, http://www.dow.com/products/product_detail.page?product=1123799&application=1120798.

Mattox teaches isothiazolone concentrate compositions comprising a) 0.01 to 50 parts of 3-isothiazolone (including DCOIT), b) 0.0001 to 10 parts copper salt and c) optionally 40 to 99.9899 parts organic solvent including di-

glycols. Mattox also teaches compositions containing from 0.01 to 30 weight of the a-c composition above in water with an emulsifier. See page 2 lin 41-page 3 lin 49, examples part 3 and claims 1-3 and 10. Regarding the limitation that the composition contains at least one inorganic filler, Mattox in example 3, a paint formulation, lists the use of Ti-Pure R-902 a titanium dioxide pigment used in coatings as evidenced by the teachings of DuPont's product brochure on titanium dioxide products used in coatings (cited in previous action filed 02/27/2007).

Applicants claimed amount range for DCOIT is within the concentration range of isothiazolone for Mattox. A prima facie case of obviousness typically exists when the range of a claimed composition lies inside the range disclosed in the prior art, such as in the instant rejection. Therefor, based on the described overlap above, the instant claims would have been obvious to one of ordinary skill in the art.

MPEP § 2144.05. Regarding the new limitation in claims 1 and 6 that the composition comprises a nonionic surfactant in amounts of 0.2-5%, Mattox exemplifies a paint formulation containing .22% Triton CF-10 (calculated from $1.3/581.17 \times 100$) a commercially available non-ionic surfactant as evidenced by the product brochure for triton CF-10.

Claims 1,3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattox (EP 0,490,565 A1, cited previously) in view of Taketani et al. (US 6,010,563) as evidenced by Brake et al. (US 3,817,762).

Mattox is disclosed above. In regards to claims 4 and 8, Mattox as described above teaches using an amount of copper salt from 0.0001 to 10 parts an amount that overlaps applicants claimed lower limit of at least 2 wt%.

Therefor, based on the described overlap above, the instant claims would have been obvious to one of ordinary skill in the art. MPEP § 2144.05. Also the exemplified paint formulation uses natrosol 250, as evidenced by Brake this commercial product is a known thickener. See examples 4-5 of Brake.

Furthermore in regards to claims 4-5 and 8 Mattox exemplifies a paint formulation comprising ~2% ethylene glycol (calculated from $12.5/581.17 \times 100$), while at or slightly below applicants claimed higher limit of 2% the examiner considers these values to be close enough that they would have the same properties. A prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. MPEP § 2144.05. While '565 does not mention kaolin in the description or examples, kaolin is simply a mineral found in clay and '565 does disclose the use of Attagel 50 a known clay material, therefore it is obvious that Attagel 50 clay will contain kaolin. Additionally the amounts of TiO_2 and clay exemplified by Mattox are not within the range of 6 to 10% recited in claims 4 and 8. However the percentage or the ratio of specific ingredients in this composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient needed to achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, the optimization of ingredient

amounts would have been obvious at the time of applicant's invention. It is well-established that merely selecting proportions and ranges is not patentable absent a showing of criticality. *In re Becket*, 33 USPQ 33; *In re Russell*, 169 USPQ 426.

Mattox does not describe the use of the specific surfactants claimed in claims 4 and 8.

Taketani teaches an anticorrosive paint composition comprising the wetting agent (surfactant, emulsifier) surfinol, which as recited in applicants specification in the examples is a commercial product containing 2,4,7,9-tetramethyl-5-decyne-4,7-diol. See table 2.

Since both references teach anticorrosive paint formulations one of ordinary skill in the art would have a high expectation of success in substituting the non-ionic surfactants, emulsifiers such as Triton CF-110 taught in Mattox with the surfactant surfinol taught in Taketani. It is generally considered to be prime facie obvious to combine or substitute compounds each of which is taught by the prior art to be useful for the same purpose in order to form a composition that is to be used for an identical purpose. The motivation for combining or substituting them flows from their having been used individually in the prior art, and from them being recognized in the prior art as useful for the same purpose. As shown by the recited teachings, instant claims are no more than the use of conventional surfactants used in a paint formulation. It therefore follows that the instant claims define prime facie obvious subject matter.

Claims 1,3-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattox (EP 0,490,565 A1, cited previously) in view of Taketani

et al. (US 6,010,563) in view of Kostansek et al. (EP 1,060,667 A2, cited in previous office action).

Mattox and Taketani are described above including the reasoning for why the combination is obvious. Mattox is silent melting DCOIT before addition of the other ingredients as required in claim 10.

Kostansek is used primarily for the disclosure within that the method of melting an active (biocides are specifically mentioned), before addition of the other ingredients was already well known in the art at the time of the invention. Kostansek is also used for the disclosure within that the melted active can also contain a solvent that it is soluble in, thus meeting the limitation of claim 10. See abstract, [0002]-[0005],[0008]-[0011] and claims 1-3. The disclosed advantage of producing a suspension concentrate of a biocide in this manner was that the method produced small particles. It was disclosed that the efficiency of the pesticides (species of biocide) is often related to the size of the pesticide particle, typically the smaller the particle the greater the efficiency due to factors such as increased release rate and wider and more uniform coverage upon application.

The motivation to combine the above documents would be to produce an aqueous DCOIT composition by melting/dissolving the biocide prior to addition of other ingredients. The advantage of this methodology would be that the biocide particles produced are small, thus increasing the release rate and providing more uniform coverage of the biocide upon application. One of ordinary skill in the art would have a reasonable expectation of success in combining Kostansek with Mattox since they are related in the same field of endeavor and their composition

makeup is similar in that they all disclose suspensions containing biocides.

Thus, the claimed invention, taken as a whole was *prima facie* obvious over the combined teachings of the prior art.

Conclusion

No claims are allowed. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Rogers, Ph.D. whose telephone number is (571) 272-7838. The examiner can normally be reached on 9:30-6:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/James W Rogers, Ph.D./

Examiner, Art Unit 1618